

Claims

1. A method of producing aluminium alloy sheet material,
5 **characterised in the following steps;**
 - continuous strip casting of a sheet at a predetermined solidification rate ensuring material microstructure exhibiting primary particles having average size below 1 micrometer², and
 - (cold) rolling of the strip cast sheet to an appropriate gauge with optionally intermediate annealing during the cold rolling.
- 10 2. Method according to claim 1,
characterised in that
the sheets are further annealed during cold rolling.
- 15 3. Method according to claims 1 and 2,
characterised in that
the alloy is cast to 4.5 mm thick strip and cold rolled to 0.58 mm followed by an intermediate annealing.
- 20 4. Method according to claims 1-3,
characterised in that
the intermediate annealing was undertaken in an air furnace by heating from room temperature to 340°C at 30°C/hour and soaking at 340°C for 3 hours.
- 25 5. Method according to claims 1-4,
characterised in that
30 after cooling from 340°C to 200°C at 50°C/hour, the material was cooled in air.

6. Method according to claims 2-5,
characterised in that
after annealing, the material was further cold rolled to 60 μm .

5 7. An aluminium alloy sheet,
characterised in that
its material microstructure exhibits primary particles having average size below 1 micrometer².

10 8. Aluminium alloy sheet according to claim 7,
characterised in that
the primary particles are iron-enriched particles ensuring improved pitting corrosion resistance.

15 9. Aluminium alloy sheet according to claim 7-8,
characterised in that
at least one of the flat surfaces is coated with a reactive flux retaining coating capable of providing joints in a brazing process, where the flat surface at least partially is coated with a flux retaining composition comprising a synthetic resin based, as its main constituent, on methacrylate homopolymer or a methacrylate copolymer.

20 10. Aluminium alloy sheet according to claims 7-9,
characterised in that
at least one of the flat surfaces is coated with a reactive flux or a normal flux to enable the sheet to be utilised as tube for clad fin in a heat exchanger.

25 11. Aluminium alloy sheet according to claims 7-9,
characterised in that
at least one of the flat surfaces is coated with Al-Si powders to enable the sheet to be utilised as header in a heat exchanger.